

REMARKS

The Applicant thanks the Examiner for allowing claims 2 to 6.

The acknowledgment of a claim for foreign priority under 35 U.S.C. §119 (a)-(d) and indication that the certified copies are received by the Office is also noted with appreciation.

The specification has been carefully reviewed again and amended to correct minor errors of idiomatic English. No new matter is added by this amendment.

Claims 1, 7 and 8 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Welles, II et al. (U.S. Patent 5,686,888). This rejection is respectfully traversed for the reason that Welles, II et al. does not show or otherwise teaches the claimed invention.

The present invention is related to a fault monitoring method for a commodity management radio apparatus. The present invention aims to provide a commodity management radio communicating apparatus in which a user of a portable radio communication terminal can check a fault of a radio communication section without help of a maintenance person when a problem takes place in the communication terminal of the commodity management radio communicating apparatus. The claimed commodity management radio communication system, disclosed by the present invention, is used in a convenience store or a like, wherein a radio communication base station is connected to an inventory controller connected to a plurality of Point of Sale (POS) terminals. In addition to these there are a group of radio communication terminals held by monitoring people which transmit to the inventory controller inventory information like inventory counting or item-checking data. According to the present invention, when a number of retrying times of radio communication between the portable radio communication terminal and the radio communication base station exceeds a predetermined number automatically takes place a test of a radio communication sections of the portable radio communication terminals. After the test has executed the results, related to the fault portable radio

communication terminals, are displayed. Additionally, according to the preferable mode of the present invention, a test is executed after checking that the radio communication between each portable radio communication terminal and the radio communication base station is vacant continuously and after passing a predetermined execution prohibiting time zone. According to a second embodiment the a fault monitoring program can be provided on a storage medium to allow a computer to carry out a fault monitoring program.

The reference to Welles, II et al. discloses a method for monitoring the condition and/or integrity of goods during shipping. According to Welles, II et al., there are a number of autonomous electronic sensors 68 placed in proximity to the cargo, which communicate via transceiver with an asset tracking unit 10 affixed to the container for the goods. The asset tracking unit 68 has the ability to relay the cargo sensor data to the central station 18 via a communication satellite 16 when it is necessary. All data received from the sensors 68 are recorded. Monitoring parameter is defined by a customer request. For instance, it can be a certain temperature of the goods during shipping. If cargo temperature rises above or falls down below the thresholds supplied by the customer, an immediate or a scheduled report of this fact is made to the central station 18, as determined by the customer request. Usually, the certain scheduler of sensor reading is established. All reading data are recorded even when a tracking unit fails to detect a message for the specific sensor.

The Examiner states in the office action that the reference to Welles, II et al. discloses almost all aspects of the present invention besides a displaying step. However, it should be noted that the method provided by the present invention and the reference teach quite different systems. The present invention is related to a commodity management system wherein a signal from each portable terminal affects an inventory list. In contrast, Welles, II et al. shows the system for gathering data from cargo sensors wherein the fault to supply data from one sensor does not affect general monitoring picture and does not require or perform testing in order to figure out what is wrong with a non-functioning sensor. The Examiner

refers to Column 6, lines 43-67 in the Welles, II et al. wherein the operation of the disclosed system is provided. Specifically, Welles, II et al. beginning at line 56 says, "During cargo loading, or at a command from the central station, the tracking unit monitors, or 'listens to' the cargo sensors continuously for more than fifteen minutes. ... When transmissions from the sensor are received, as detected at decision step 502, the exact times of arrival of all signals from the cargo sensors are recorded by the tracking unit at step 503. A test is made at decision block 504 to determine if the time period for listening for cargo sensor transmissions has expired." (Emphasis added). As it can be seen, in Welles, II et al. only the time period for listening of sensor is tested. In contrast, the present invention does an automatic testing of a radio communication sections for functioning/non-functioning in the portable radio communication terminal without help of a maintenance person during operation of a commodity management radio communication system. The main idea of the present invention is that when a certain portable radio communication terminal after several times of unsuccessfully retrying to contact the radio communication base station the radio communication terminal initiates testing of itself in order to figure out is it out of order. This testing helps timely recognize an inventory inaccuracy due to a non-functioning terminal.

In making a rejection, the Examiner specifically relies on claim 4 of Welles, II et al., which states, "The method of tracking and gathering data from cargo sensors recited in claim 3 and further comprising the step of recording at said each tracking unit a failure to detect a message during a logged time for the specific one of said environmental sensors." However, this claim again highlights the fact that Welles, II et al. teaches that all data received from the sensors are collected and recorded. There is no indication that testing of the sensors, which did not provide information, takes place and it does not mean that the central unit in response to failure to detect data from a particular sensor a testing of this "silent" sensor. In other words, the system shown by Welles, II et al. performs only monitoring and recording functions and does not do testing based on the

monitored data as Applicant's method teaches. This feature is clearly reflected in the rejected claims 1, 7-8. Specifically, claim 1 recites, "... automatically executing a test of a radio communication section in arbitrary portable radio communication terminals when a number of retrying times of radio communication between said arbitrary portable radio communication terminals and said radio communication base station exceeds a predetermined number of times;..." (Emphasis added).

Furthermore, due to the structural and functional differences of the present invention and the reference, for the system shown by Welles, II et al. is not very important to get data from every sensor for the reason that there are a group of them in the same environment, so that the general situation about, for instance, the temperature condition of a cargo can be obtained any way. In contrast, in the Applicant's system if the several entries will be missed it can affect an inventory accuracy in general. Therefore, it is very important to check portable communication terminals when a number of retrying times to the base station exceeds a predetermined number, test them and find out whether the portable radio communication terminal has a fault or not. A user of the tested portable communication terminal is immediately notified by a message on a display when non-functionality of this particular terminal is discovered during the test. The Applicant respectfully submits that the reference to Welles, II et al. does not show testing of the fault terminals and displaying of a fault of portable radio terminals on a display. These features are clearly presented in the rejected claims 1, 7 and 8. Therefore, the rejection of these claims is improper.

The prior art cited but not relied on by the Examiner has been reviewed, but for the reasons already advanced, the prior art is similarly not relevant to the invention as claimed.

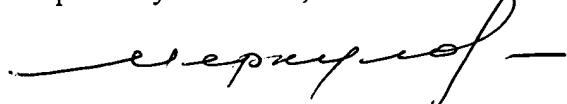
In view of the foregoing, it is respectfully requested that the application be reconsidered, that claims 1, 7 and 8 be allowed, and that the application be passed to issue.

Should the Examiner find the application to be other than in condition for

allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary in a telephonic or personal interview.

A provisional petition is hereby made for any extension of time necessary for the continued pendency during the life of this application. Please charge any fees for such provisional petition and any deficiencies in fees and credit any overpayment of fees to Attorney's Deposit Account No. 50-2041 (Whitham, Curtis & Christofferson, P.C.).

Respectfully submitted,



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